UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
SHAN, APRIL YING

ART UNIT	PAPER NUMBER
2135	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/717,770	CHEN, LING TONY
	Examiner	Art Unit
	April Y. Shan	2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2007*.

2a)☐ This action is **FINAL.** 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5,8,11,14,19-24 and 27-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 5, 8, 11, 14, 19-24 and 27-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   A Request for Continued Examination under 37 CFR 1.114, including the fee

set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10

October 2007 has been entered.

2.   Claims 1-2, 5, 8-11, 14, 19-24 and 27-33 have been amended. Claims 3-4, 6-

7, 9-10, 12-13, 15-18, 25-26 and 34-36 have been canceled. No new claims have been

added. Claims 1-2, 5, 8, 11, 14, 19-24 and 27-33 are currently pending in the present

application.

3.   Any objections or rejections not repeated below for record are withdrawn due

to Applicant's amendment.

4.   Applicant's amendments and argument have been fully considered, but are

moot in view of new ground rejection as set forth below. It is noted that Applicant's

arguments are directed towards limitations newly added via amendments.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

6.   Claims 1-2, 5, 8, 11, 14, 19-24 and 27-33 are rejected under 35 U.S.C. 112, first

paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention.

As per **claims 1-2, 5, 8, 11, 14, 19-24 and 27-33**, "an untrusted entity" and "a

trusted entity" are being recited. The examiner respectfully and carefully reviewed the

Applicant's original disclosure, for example, in all the figures of the current application,

only "a client" and "a server" are being recited. There are no indication of either a client

or a server is untrsuted or trusted. The examiner finds no support in the original

disclosure about "an untrsuted entity" and "a trusted entity". Further, some other

limitations such as singer identification for the untrusted entity is not supported by the

disclosure either. Is it server's signer identification or client's signer identification?

Furthermore "(f) the trusted entity utilizing they key...to generate a temporary

signature..." is being recited in claim 1. The examiner respectfully and carefully

reviewed the Applicant's original disclosure, in particular page 14 of the original

disclosure and this newly added claim limitation is not supported/defined in the original

disclosure. The disclosure discloses "the server computes the signature using a

HMAC" and it is not a temporary signature. Please clarify.

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

8.   Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

As per **claim 14**, it is depended on a canceled claim 12. Please correct.

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10.   Claims 1-2, 5, 8, 11, 19-24 and 27-33 are rejected under 35 U.S.C. 102(e) as

being anticipated by Prasad et al. (U.S. Patent No. 6,675,152).

As per **claim 1**, Prasad et al. discloses a method for ensuring that data

generated by an untrusted entity, comprising a first computing device, and subsequently

stored in a persistent storage of the untrusted entity have not been modified when the

data are subsequently accessed for use by the untrusted entity, comprising steps of:

(a) the untrusted entity ("Clerk Validation Terminal (CVT) 106" – e.g. col.

4, lines 2-3. Please note CVT corresponds to Applicant's untrusted entity) sending first

data related information to the trusted entity for signature computation (e.g. col. 6, lines

60-66);

(b) a trusted entity ("main processor in conjunction with the network central database" – e.g. col. 6, lines 61-62. Please note main processor in conjunction with the network central database correspond to Applicant's trusted entity) comprising a second computing device, employing a key that is only known and available for use by the trusted entity, to compute a signature for the first data related information before the data are stored in the persistent storage by the untrusted entity (e.g. col. 7, lines 34-40);

(c) the trusted entity sending the signature to the untrusted entity for storage (e.g. col. 8, lines 52-55);

(d) storing the signature and the data in the persistent storage of the untrusted entity (e.g. col. 8, lines 52-55);

(e) before the data that were stored are subsequently used by the client untrusted entity, the untrusted entity sending second data related information to the trusted entity to verify that the data that were stored have not been changed (e.g. col. 8, line 66 – col. 9, line 10);

(f) the trusted entity utilizing the key that is only known and available for use by the trusted entity to generate a temporary signature of the second data related information sent to the trusted entity (e.g. claim 1);

(g) comparing the temporary signature to the stored signature (e.g. claim 1); and

(h) only using the data that were stored if the step of indicates that the signatures match and that the data that were stored have not been changed since the

signature was computed before storing the data and the signature (e.g. col. 10, lines 1-3).

As per **claim 2**, Prasad et al. further discloses wherein the first data related information is the same as the data and the second data related information is the same as the stored data (e.g. col. 8, line 66 – col. 9, line 10 and claim 1).

As per **claims 5 and 8**, Prasad et al. further discloses wherein the first data related information comprises a digest of the data and the second data related information comprises a digest of the stored data wherein the digests are calculated by the untrusted entity based on the data and stored data (e.g. col. 8, lines 1-12. Please note a **cyclic redundancy check** (CRC) is a type of function that takes as input a data stream of any length and produces as output a value of a certain fixed size. The term CRC is often used to denote either the function or the function's output. A CRC can be used as a checksum to detect accidental alteration of data during transmission or storage. A checksum is same as message digest) and a signer identification (ID) for the untrusted entity, the signer ID uniquely indicating the untrusted entity and not being controlled by an operator of the untrusted entity (e.g. col. 6, lines 25-28. Please note validation number 206 corresponds to Applicant's signer ID);

As per **claim 11**, Prasad et al. further discloses wherein the data comprise a plurality of different sets of data, further comprising the steps of:

(a) obtaining a signer identification (ID) for the untrusted entity, the signer ID uniquely indicating the untrusted entity and not being controlled by an operator of the untrusted entity (e.g. col. 6, lines 25-28. Please note validation number 206 corresponds to Applicant's signer ID);

(b) on the trusted entity, using the key for computing an intermediate key from a concatenation of an arbitrary value and the signer ID (e.g. col. 7, lines 17-33, col. 8, lines 37-43);

(c) sending the intermediate key from the trusted entity to the untrusted entity (e.g. col. 8, lines 52-55);

(d) using the intermediate key to sign each set of the data to produce the signature for the set of data (e.g. col. 6, lines 54-66); and

(e) storing the signature, the arbitrary value, and the signer ID on the persistent storage (e.g. col. 8, lines 52-55).

As per **claim 19**, Prasad et al. disclose method of steps as applied above in claim 1. Therefore, Prasad et al. discloses the claimed machine readable instructions stored on a memory medium for carrying out the method of steps.

As per **claims 21 and 29**, they are rejected using the same rationale of rejecting claim 5 above.

As per **claims 22 and 32**, they are rejected using the same rationale of rejecting claim 8 above.

As per **claims 20, 27-28**, they are rejected using the same rationale of rejecting claim 1 above.

As per **claims 23 and 30**, they are rejected using the same rationale of rejecting claim 11 above.

As per **claims 24, 31 and 33**, they are rejected using the same rationale of rejecting claims 1, 5 and 8 above.

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

13.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad

et al. (U.S. Patent No. 6,675,152) and further in view of Peinado (U.S. Patent No.

7,073,063).

As per **claim 14**, Prasad et al. does not expressly disclose the step of

determining if the signer ID that was received from the untrusted entity is on a list of

banned signer IDs, and if so, indicating in the result that the set of data are not usable

by the untrusted entity. However, this well known feature is disclosed in Peinado (col.

18, line 55 – col. 19, line 3). It would have been obvious to a person with ordinary skill

in the art to combine such well known feature disclosed in Peinado with Prasad et al

since it helps to protect "information security for gaming machine networks", as

disclosed by Prasad et al. (e.g. col. 1, lines 5-8)

Conclusion

14.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. (See PTO-892)
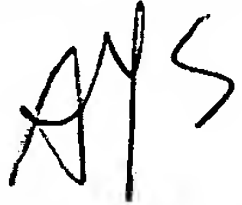
Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to April Y. Shan whose telephone number is (571) 270-

1014. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00

p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

21 December 2007
AYS